

Patent Application Number: 09/360,582

In the Specification

Please amend page 6, lines 3-12 as follows:

OK TO ENTER: /J.M./

02/21/2011

FIG. 2 is a cross sectional illustration of a portion 30 of the accelerator based neutron source 12 (FIG. 1). The source 12 (FIG. 1) includes a stainless steel housing 31 within which is a beryllium target 32 having a first surface 33 that is bombarded by energetic particles, which may be for example protons or deuterons. In response, the beryllium target 32 produces a neutron flux that flows out of the source 12 through outlet 30, and in the process, the beryllium target 32 becomes very hot. According to the present invention, liquid gallium is used to cool the target 32.

The source 12 (FIG. 1) includes a nozzle 34 that receives the liquid gallium and provides a concentrated flow 37 of liquid gallium onto a second surface 39 of the target 32. The second surface 39 is on the opposite side of the first surface 33. The liquid gallium fills chamber 40 and exits to the heat exchanger 24 (FIG. 1).